

REMARKS

Though no amendments have been, made to the claims, Applicant respectfully submits the above Claim Listing. Claims 16-30 are pending in the current application. In an Office Action dated 08 September 2008, the Examiner rejects claims 16-17 under 35 U.S.C. 102(b) as being anticipated by US Patent No. 4,786,767 to Kuhlman. Additionally, claims 18-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuhlman. However, independent claim 16, as discussed herein, includes limitations not taught or suggested by Kuhlman. Thus, claim 16, and the remaining claims depending therefrom, are allowable over Kuhlman. Applicant will now respectfully address the Examiner's specific rejections.

In general, Applicant's invention concerns a foil-type switching element comprising a first carrier foil and a second carrier foil, wherin at least one carrier foil possesses a multi-layered configuration. The first and second carrier foils are arranged at a certain distance from each other by means of a spacer. The use of a spacer creates at least one recess, hereafter referred to as the active area of the switching element. At least two electrodes are arranged in the active area of the switching element. Additionally, a layer of pressure sensitive material is arranged in the active area. During operation, in response to a pressure acting on the active area, the first and second foils are pressed together and an electrical contact is established between the at least two electrodes via the layer of pressure sensitive material. The multi-layered design of at least one carrier foil allows for production of carrier foil possessing the combined properties of the individual layers. For example, a combination of materials having differing modulus of elasticity may be used to construct a multi-layered carrier foil capable of maintaining the desired elastic properties through a wide temperature range. Furthermore, the advantageous addition of a layer of pressure sensitive material allows the electrical resistance between the at least two electrodes to vary in response to differing pressures with which the two carrier foils are pressed together. Thus, one switch can be designed to perform two separate functions, each associated with specific pressure range. Kuhlman does not discuss a layer of pressure sensitive material arranged in the active area such that in response to a pressure acting on the active area the first and second carrier foils are

pressed together and an electrical contact is established between the at least two electrodes via the pressure sensitive material.

Turning now in detail to claim 16, the advantageous construction as discussed above is outlined in the claim. Importantly claim 16 recites a foil-type pressure sensor comprising:

“at least two electrodes and a layer of pressure sensitive material arranged in the active area of the pressure sensor between said first and second carrier foils in such a way that, in response to a pressure acting on the active area of the pressure sensor, the first and second carrier foils are pressed together against a reaction force of the elastic carrier foils and an electrical contact is established between the at least two electrodes via said layer of pressure sensitive material.” Emphasis

Added

At least this quoted limitation of claim 16 is not taught nor suggested by Kuhlman. Accordingly, the claim is novel and unobvious.

Turning to Kuhlman, the reference discloses a transparent touch panel switch which seeks to provide relatively low transmittance of back lighting and significantly reduced reflectance in order to construct a switch with an enhanced signal-to-noise ratio.

Kuhlman attempts to accomplish this objective by providing a switch configuration with multi-layered sheets, each layer contributing properties of low lighting transmittance and/or reduced reflectance. Thus, the materials used in Kuhlman’s multi-layered design are chosen for their light transmittance and reflectance properties. Kuhlman’s claim 1 references each of the individual layers of Kuhlman’s design and their function.

“the outer sheet having a light transmission value of from about 0.20 to about 0.80 and comprising a flexibly transparent plastic substrate having on at least a portion of its outer surface a diffuse hard-coat and on its inner surface a first antireflective transparent electrically conductive coating,
and the inner sheet comprising a flexible transparent plastic substrate having on its outer surface a second antireflective transparent electrically conductive

coating and on its inner surface a third antireflective transparent electrically conductive coating." Column 8, Lines 19-30, *Emphasis Added*

Kuhlman disclosure, exemplified above, does not mention a layer of pressure sensitive material arranged in the active area of the switching element as disclosed by the Applicant. Accordingly, Applicant's claim 16 is novel and unobvious.

Additionally, Applicant's claim 16 further distinguishes itself from Kuhlman by reciting:

"at least two layers of different materials having different elastic properties so that the elastic properties of said at least one carrier foil are a combination of the individual elastic properties of said at least two layers." *Emphasis Added*

Kuhlman's disclosure is silent as to improving the elastic properties of the switch, as disclosed by Applicant. Accordingly, this additional element is novel and unobvious in view of Kuhlman, furthering the allowable nature of Applicant's claim 16.

It is established that "a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. V. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). As expressed above, every element of claim 16 is NOT found in Kuhlman, thus the reference fails to anticipate the claim. Reconsideration and withdrawal of the relevant section 102 rejection is requested.

Furthermore, Kuhlman's disclosure is solely directed towards improving the optical characteristics of his *transparent* touch panel switch. For example:

"The various layers in this configuration of switch all contribute to a relatively low transmittance of back lighting. However, they also significantly reduce reflectance such that the overall signal-to-noise ratio obtained with this switch is substantially enhanced." Column 2, line 66-Column 3, line 2 *Emphasis Added*

Therefore, one skilled in the art would not consider adding a layer of pressure sensitive material to Kuhlman, as this addition would negatively impact the transparency and signal-to-noise ration of the switch; thus negating Kuhlman's invention.

As mentioned at the outset, claims 17-30 also stand rejected. However, these claims depend from allowable claim 16 or an intervening claim, and are therefore allowable as well. Withdrawal of the respective §102(b) and §103(a) rejections is respectfully requested.

In sum, all of the rejections are herein addressed and overcome by the current remarks. No new matter is added herein as support is found throughout the originally filed specification. The application is now believed to be in condition for allowance. Prompt issuance of Notice of Allowance is respectfully requested.

The Examiner is invited to contact Applicants' attorney at the below listed phone number regarding this response or otherwise concerning the present application. Applicants hereby petition for any necessary extension of time required under 37 C.F.R. 1.136(a) or 1.136(b) which may be required for entry and consideration of the present Reply. If there are any charges due with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130 maintained by Applicants' attorneys.

Respectfully submitted,

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